

fraction according to claim 1, wherein said assay method according to claim 5 and said assay method(s) according to claims 3 and/or 7 are carried out in combination.

5 9. The method for assaying a specific component in a lipoprotein fraction according to claim 1, wherein said assay method(s) according to claim 4 and said assay method according to claims 2 and/or 6 are carried out in combination.

10 10. The method for assaying a specific component in a lipoprotein fraction according to claim 1, wherein said method is a method for assaying cholesterol in an LDL fraction, which comprises introducing a means for selectively subjecting a cholesterol component in an HDL fraction to an enzymatic reaction to assay or digest thereof  
15 in the first enzymatic reaction system utilizing said assay method according to claim 8 or 9, and then subjecting the cholesterol component in the LDL fraction to an enzymatic reaction in a second enzymatic reaction system by utilizing said assay method according to claim 4 and a nonionic surfactant that has an HLB value of 11  
20 to 13.

11. The method for assaying a specific component in a lipoprotein fraction according to claim 1, wherein said method is a method for assaying cholesterol in a VLDL (very low-density lipoprotein)  
25 fraction, which comprises simultaneously or separately treating said first enzymatic reaction system and said second enzymatic

reaction system in said assay method according to claim 10 to have the cholesterol component remained and then introducing a means for decomposing the VLDL fraction to subject the cholesterol component in the VLDL fraction to an enzymatic reaction.

5

12. The method for assaying a specific component in a lipoprotein fraction according to any one of claims 8 to 11, further comprising a step for adding cholesterol oxidase or cholesterol dehydrogenase to digest free cholesterol.

10

13. The method for assaying a specific component in a lipoprotein fraction according to any one of claims 1 to 12, wherein pH of the reaction solution is selected from within a range where the lipoprotein does not form aggregates nor make turbidity of the

15

reaction solution and in view of an optimum pH of an enzyme used in the enzymatic reaction of the component in the lipoprotein.

## ABSTRACT

A method for quantitating a specific component in lipoproteins contained in a biological sample, for example, HDL (high-density lipoprotein), LDL (low-density lipoprotein) or VLDL (very low-density lipoprotein) by using a commonly employed automatic analyzer without centrifuging or making the reaction liquor cloudy due to complexes or aggregates. Namely, a controlling means, whereby an enzyme reaction can be carried out exclusively for the target component, is introduced into a method for enzymatically assaying a component in a specific lipoprotein fraction in the serum, thereby specifically assaying the component.

0944552, 1983001